

SEQUENCE LISTING

<110> Miettinen-Oinonen, Arja
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Lantto, Raija
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Joutsjoki, Vesa
Paloheimo, Marja
Suominen, Pirkko

<120> Novel Cellulases, The Genes Encoding Them and Uses Thereof

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<151> 1997-04-30

<150> PCT/FI96/00550
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Val Tyr Ser Cys Asp Ala Asn Phe Gln Arg Ile His Asp Phe Asp Ala
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Val Ser Gly Cys Glu Gly Gly Pro Ala Phe Ser Cys Ala Asp His Ser
65 70 75 80

Pro Trp Ala Ile Asn Asp Asn Leu Ser Tyr Gly Phe Ala Ala Thr Ala
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Leu Ser Gly Gln Thr Glu Glu Ser Trp Cys Cys Ala Cys Tyr Ala Leu
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Thr Phe Thr Ser Gly Pro Val Ala Gly Lys Thr Met Val Val Gln Ser
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Cys Pro Asp Val Glu Ser Cys Ala Arg Asn Cys Ile Met Glu Gly Val

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Arg	Phe	Tyr	Leu	Met	Asn	Gly	Pro	Asp	Lys	Tyr	Gln	Met	Phe	Asn	Leu	130	135	140	
Met	Gly	Asn	Glu	Leu	Ala	Phe	Asp	Val	Asp	Leu	Ser	Thr	Val	Glu	Cys	145	150	155	160
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Val	Gly	Pro	Tyr	Gly	Ser	Cys	Cys	Ala	Glu	Ile	Asp	Val	Trp	Glu	Ser	225	230	235	240
Asn	Ala	Tyr	Ala	Phe	Ala	Phe	Thr	Pro	His	Ala	Cys	Thr	Thr	Asn	Glu	245	250	255	
Tyr	His	Val	Cys	Glu	Thr	Thr	Asn	Cys	Gly	Gly	Thr	Tyr	Ser	Glu	Asp	260	265	270	
Arg	Phe	Ala	Gly	Lys	Cys	Asp	Ala	Asn	Gly	Cys	Asp	Tyr	Asn	Pro	Tyr	275	280	285	
Arg	Met	Gly	Asn	Pro	Asp	Phe	Tyr	Gly	Lys	Gly	Lys	Thr	Leu	Asp	Thr	290	295	300	

Ser Arg Lys Phe Thr Val Val Ser Arg Phe Glu Glu Asn Lys Leu Ser
305 310 315 320

Gln Tyr Phe Ile Gln Asp Gly Arg Lys Ile Glu Ile Pro Pro Pro Thr
325 330 335

Trp Glu Gly Met Pro Asn Ser Ser Glu Ile Thr Pro Glu Leu Cys Ser
340 345 350

Thr Met Phe Asp Val Phe Asn Asp Arg Asn Arg Phe Glu Glu Val Gly
355 360 365

Gly Phe Glu Gln Leu Asn Asn Ala Leu Arg Val Pro Met Val Leu Val
370 375 380

Met Ser Ile Trp Asp Asp His Tyr Ala Asn Met Leu Trp Leu Asp Ser
385 390 395 400

Ile Tyr Pro Pro Glu Lys Glu Gly Gln Pro Gly Ala Ala Arg Gly Asp
405 410 415

Cys Pro Thr Asp Ser Gly Val Pro Ala Glu Val Glu Ala Gln Phe Pro
420 425 430

Asp Ala Gln Val Val Trp Ser Asn Ile Arg Phe Gly Pro Ile Gly Ser
435 440 445

Thr Tyr Asp Phe
450

<210> 36

<211> 887

<212> DNA

<213> Melanocarpus albomyces

<400> 36

ccatggacgc gaactgacgac gtcttctgcc ccgagctgaa gacccagagc atccagaccg	60
gcaaccagtg caccaggag atgaaggctc acgagaacat tgacggctgg ctgcacagcc	120
tgcccggaac cgtcccatc accggtccgc agccgggctc tggtaagtca aagagatgat	180
gcctacctac cttccacac tcccaccag ccgcaaatac ctttctccct ccccggtgcc	240
cgtattcttt caacgcccc agactgacag acccgctcgt cccaggcggc aacccggca	300
acggcggcgg cagcaacccg ggcaacggcg gcggcggcgg ctgcaccgtc cagaagtggg	360
gccagtgcgg cggcatcggc tactcggggt gcaccacctg caaggccggc tcgacctgcc	420


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cggccccagaa cgagtactac tcgcagtgcc tgtaaagcgg ccgtgggcta ggtggccgag      480
cggggggggtt tcttcattgg ttgagcaaat agaacaggat ttccggctcg ttggcagcgg      540
cgcgccgcgg ggatggtggt gtacaattca agacctcagt accgagggac ctggaaagga      600
gtcagtctgc ttgtacggag gctggctgcc ccgtggcggc gctggcaagg tagatagccc      660
ttcattgctg taactagtat gctatatacc tctgcacatt tgcagcccca tgggtgtgaac      720
aacaagtgac aaggcttcca gttccagcct cgcgcaattg tcacgatata cttgggtccat      780
ctatatgtat gggcatgagc gagtcgagaa aatgtaccgc gaaaaatcgt agtgacctgc      840
gcactgcgcc gttctaccac cgtaggattg aagtgaatct cgaattc                        887

```

```

<210> 37
<211> 34
<212> PRT
<213> Melanocarpus albomyces

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```

<400> 37

```

```

Gln Lys Trp Gly Gln Cys Gly Gly Ile Gly Tyr Ser Gly Cys Thr Thr
1           5           10           15

```

```

Cys Lys Ala Gly Ser Thr Cys Pro Ala Gln Asn Glu Tyr Tyr Ser Gln
          20           25           30

```

```

Cys Leu

```

```

<210> 38
<211> 29
<212> DNA
<213> Unknown

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```

<220>
<223> PCR Primer

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```

<400> 38
atagaattct aytgggaytg ytgyaarcc      29

```

```

<210> 39
<211> 26
<212> DNA
<213> Unknown

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<220>
<223> PCR Primer

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<220>
<221> misc_feature
<222> (15)..(15)
<223> n is a, c, g, or t

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<400> 39
atagaattct trtcngcrtt ytgraa

26

<210> 40
<211> 17
<212> DNA
<213> Unknown

<220>
<223> PCR Primer

<220>
<221> misc_feature
<222> (9)..(9)
<223> n is a, c, g, or t

<400> 40
gaygaracng arcaymg

17

<210> 41
<211> 17
<212> DNA
<213> Unknown

<220>
<223> PCR Primer

<220>
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<222> (3)..(3)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (6)..(6)
<223> n is a, c, g, or t

<220>
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<222> (9)..(9)
<223> n is a, c, g, or t

<220>
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17

<210> 42
<211> 17
<212> DNA
<213> Unknown

<220>
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<220>
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<223> n is a, c, g, or t

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aarcaygart aygnac

17

<210> 43
<211> 17
<212> DNA
<213> Unknown

<220>
<223> PCR Primer

<220>
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<223> n is a, c, g, or t

<400> 43
ccrtaraart cnggrtt

17

<210> 44
<211> 15
<212> DNA
<213> Trichoderma reesei

<400> 44
ccgcggactg gcatc

15

<210> 45
<211> 16
<212> DNA
<213> Trichoderma reesei

<400> 45
ccgcggactg cgcac

16